

Is The Well Dying?

Blue Note HP-001



Production often falls off or even stops entirely in oil & gas wells as they mature. Occasionally, the fix may be an easy one. But in many cases it will not respond to 'quick fix' attempts and it might be assumed that the well is drying up—dying. **NOT SO FAST.**

With the cost of drilling a new well (let alone the permitting issues!), any production that can be brought back to the older well is well worth the effort and cost to do so. In many cases, short term remedies performed may have contributed to the long term demise of the unit. A scientific approach should be used to determine; a) what may have caused the loss of productivity, and b) what can be done to recover that production.

A few of the problems that may exist, and can be corrected, are:

1. Calcium, barium, strontium or magnesium scale may have formed either in the tubing (and perforations) or in the formation, or both. Often times, strong acids are used with some positive benefit. However, scale not dissolved in the acidification are generally less soluble or are far enough from the application point that the acid does not get to the real problem. Also, the acid may damage both the equipment and the formation.
2. When water is injected, it may add iron deposits (from surface sources) that reduce production. Surface sourced bacterial biofilm can also form in the equipment and the formation, and will also reduce production. Neither problem is addressed by acidizing.
3. Paraffin, if present will plug everything! And hot water, hot oil and simple solvent washes can provide a short term boost but may leave very long chain, high melting point paraffin fractions that will be worse than the original mixed paraffin problem.
4. Salt! If concentrations of salt in the produced water are high, the NaCl concentration can exceed its solubility, especially at a pressure drop (perfs) and cause plugging or a salt bridge/block. Salt crystallization can also act as a nucleating site for paraffin deposition.



One AquaSource can help you determine what problems may be causing your well to die and we will help you establish a game plan to bring extra production life to this valuable asset.

T O M O R R O W ' S C H E M I S T R Y , T O D A Y

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